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FACTORS AFFECTING FERTILITY DESIER AMONG HIV-POSITIVE WOMEN CLIENTS OF HOME BASED CARE SERVICE IN FOUR TOWNS OF OROMIA REGION

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ACRONYMS

ACIPH- Addis Continental Institute of Public Health
AIDS - Acquired Immunodeficiency Syndrome
ANC - Antenatal Care
ART - Antiretroviral Treatment
CSA - Central Statistics Agency
DHS - Demographic Health Survey
ETB – Ethiopian Birr (currency)
FHI - Family Health International
FGAE- Family Guidance Association of Ethiopia
FP - Family Planning
HBC- Home Based Care
HAPCO - HIV/AIDS Prevention & Control Office
HIV - Human Immunodeficiency Virus
IEC - Information, Education and Communication
MDG- Millennium Development Goals
MOH - Ministry of Health
NGO - Non-Governmental Organization
OSSA- Organization for Social Services for AIDS
PMTCT - Prevention of Mother-to-Child Transmission
RHB - Regional Health Bureau
SPSS- Statistical Program for Social Sciences
UNAIDS - Joint United Nations Program on HIV/AIDS
WHO - World Health Organization

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ABSTRACT

Background

Little information exists about Factors affecting desire to have children among HIV-positive women especially in developing countries. So knowing circumstances around fertility of HIV-positive women is crucial to develop and plan effective interventions for mothers and children wellbeing.

Objective

The study was conducted to assess factors affecting fertility desire among HIV positive women and their perception towards child rearing in Oromia four towns.

Methods

This is a service-based cross-sectional study among HIV-positive individuals receiving Home Based Care service in four towns (Adama, Shashemene, Asela and Zeway) of Oromia Region in April 2009. Using a pre tested structured questionnaire 400 randomly selected women with HIV were interviewed by trained care providers. Data entered to computer program Epi Info version 3.4 and analyzed using SPSS version 17 software.

Results

All 400 subjects were agreed to participate in the study after verbal consent.

One hundred and twenty eight (32%) of them had a desire for a child. In comparison to those who said they did not desire to have children, those who did desire children tended to be younger (15–35 years) (adjusted odds ratio [OR]: 5.76, 95% CI: 3.23, 10.28), married (adjusted OR: 1.76, 95% CI: 1.26, 2.45), without a child (adjusted OR: 8.03, 95% CI: 4.25, 15.16)

Other characteristics like education, income level and treatment status have no association. Knowledge of PMTCT is only 4.3% which may exacerbate vertical transmission of HIV. Among those who desire to have a child, 79% reported they are not able to bring up their child by their own.

Conclusion and Recommendation

In the fact that many HIV infected adults desire and expect to have children has important implications for the prevention of vertical transmission of HIV and the future demand for social services for children born to infected parents.

For those wanting more children and those perceive child as wealth (with out their capacity) should carefully take in to consideration. To further explore causes for desire a child; qualitative study is suggested.

BACKGROUND

Ethiopia is the second most populous country in sub-Saharan Africa next to Nigeria with close to 74 million populations as announced by Central Statistics Authority. The country is among the nations which are hardest hit by the HIV epidemic. Therefore, Ethiopia faces many challenges concerning HIV/AIDS. Although the national prevalence is estimated at 3.5% by the MoH in 2008 it is reported to be very high in the urban areas averaging at 10.2%. Even though rural adult prevalence seems declining from 1.9% in 2007 to 1.8% in 2008; in a setting where the great majority of the population is rural with poor access to information and services, the prospect will be devastating unless serious measures are taken.[1] The report by the MoH indicates that an estimated 1.03 million people live with HIV. Trend analysis of the HIV epidemic from 1998 to 2008 suggests a very gradual but steady rise in HIV prevalence in rural Ethiopia. Globally, Ethiopia hosts the fifth largest number of people living with the virus. Out of the 1.03 million people living with HIV/AIDS, slightly above six hundred thousand are women and 96,000 are children under 15 years of age. There are close to 5 million orphans living in the country in 2006 out of which 754,760 are AIDS orphans and the number of AIDS orphans who lost one or both parents have increased in the past decade.[1]

Although the potential health service coverage is increasing in Ethiopia according to Health and Health Related Indicators health service utilization and quality of services are being hampered by many factors. For the poorest Ethiopians, the costs of health care accounts for much of their household expenditure. According to the Human Development Report of 2007, close to 74% of Ethiopians lives below two dollar a day.[2]

As HIV affects the more productive segment of the population, the epidemic will further exacerbate the burden on many households. The impact of the rapid spread of the epidemic in Ethiopia on the health service is drastic. Thus increasing the pressure on the health care system and particularly on HIV/AIDS care and support services are obvious. Pregnancy among HIV-positive women is alarmingly increasing from 79,183 in 2008 to 84,189 in 2009 as well as HIV-positive births 14,093 in 2008 to 14,140 in 2009. [3] Studies suggest that in a high fertility area, with a life expectancy of around 52, a woman will spend over 11 % of her lifetime in childbearing.[4]

Even in the absence of the "big killing and disabling" diseases, women suffer from a large number of conditions and sets of symptoms that are so common that are not considered as complaints, but instead are perceived as part of the "burden of being a woman".[4]

Becoming Pregnant for some women in the world today is a cause not for joy but for fear, not a celebration of new life but an acceptance that death in child birth is a very real possibility.[4] Every pregnancy faces risk.

In contrary many HIV-positive women enrolled in care and support organizations are getting pregnant in Africa.[5] Only 20% of women know that the risk of mother to child HIV transmission can be reduced through the use of certain drugs during pregnancy. So as many of HIV-positive women are living below poverty line (Poverty and HIV/AIDS exist in a symbiotic relationship) [6] they are not capable of practicing Infant Feeding Options; could be liable to mix every thing to feed their child; this in turn will impact to grater possibility to transmit the virus to the child.

In many societies, even talking about sex is taboo. Because many policymakers may not want to be perceived as promoting sexual activity, they may be reluctant to expand the capacity of health care providers to effectively provide sexual health services to people—especially youth and women living with HIV.[7]

In particular, women's inability to have control over their sexuality and sexual experiences not only increases their chances of acquiring HIV, but also undermines their ability to cope with the social, economic and physical impacts of HIV.[8]

Oromia is one of the largest and populous region with 27.1 million in Ethiopia. [9] The HIV situation of Oromia region is not different from other parts of the country. Data obtained from Oromia HAPCO revealed that of the 14,763 Voluntary Counseled and Tested clients in health institutions of Oromia in 1998 EC, 18.8% are found to be positive for HIV. The sentinel survey carried out in selected urban and rural areas of Oromia also indicated that the prevalence of HIV in the region is threatening. For instance, according to the recent[10] sentinel survey, 10.4% in Nekemte, 9.1% in Adama, 8.3% in Jimma, 7.0% in Shashemene and 10% in Asela are found positive for HIV. In addition to this situation recently on annual supervision report from HBC sites 395 out of 4100 HIV-positive women were found to be pregnant; which was 35 out of 3970 in previous year (annual report of FHI-Ethiopia 2008).

In some areas of Oromia some organization which have care and support service for HIV-positive woman; having a child or children is a pre requisite to get benefits. This may lead women to have unwanted pregnancy and childbirth. The majority of pregnancies in Ethiopia - both in and outside of marriage – are Unplanned. [9]

Therefore, the fact that many HIV infected women desire and expect to have children has important implications for the prevention of vertical and heterosexual transmission of HIV and the future demand for social services for children born to infected parents.

For many HIV infected men and women health care workers can play a central role in decision-making about childbearing and childrearing. [7]

Desire for further pregnancy and child birth is obviously becoming a major public health issue. So in order to contribute for the progress towards MDG3, 4 and 5 (as a country Ethiopia has an obligation to fulfill improved health status of mothers and children) one should take prompt actions by assessing factors related to these interlinked issues and recommend ways to overcome the challenge. That is why this study was conducted and elaborated factors related to fertility desire.

LITRATURE REVIEW

The health of mothers has long been acknowledged to be a cornerstone of public health and attention to unacceptably high level of maternal mortality has been a feature of global health and development discussions since the 1980s. [11] Yet high maternal mortality and morbidity is there in the developing world.

Unsafe sex is the second most important risk factor for disability and death in the world's poorest communities and the ninth most important in developed countries. Cheap effective interventions are available to prevent unintended pregnancy, provide safe abortions, help women safely through pregnancy and child birth, and prevent and treat sexually transmitted infections. [12] Again not much is worked out because increased abortion rate due to unwanted pregnancy is visible.

It seems that efficient and effective methods for limiting the number of children (stopping child bearing) are neglected and those who need them may not be aware of the possibility of having such chances. What are the factors behind? [13] No clear cut answer for this.

Meeting the sexual and reproductive health goals and service needs of people with HIV must be considered a global priority. [8] Despite progress in different types of services, disparities in access between urban and rural areas remain significant, especially in Bolivia, Brazil, Egypt, and Ethiopia. [14]

In Cameroon, HIV-infected men and women said that they have unprotected sex primarily because they wished to have a child, even when antiretroviral treatment (ART) was not available. Desire for children has been correlated with lower levels of protective sexual behavior and low utilization of family planning methods among HIV-infected individuals which could be seen as an effort to replace children who may have died from HIV infection. [5]

The intersection between HIV status and childbearing desires is complicated. On the one hand, HIV-positive men and women report strong pressure from family members, people in their community and health care providers to give up the idea of having children, either because of the risk of perinatal HIV transmission or out of concern for the welfare of children raised by parents who may die prematurely of AIDS. Many people living with HIV will want to prevent pregnancy, either to time and space their childbearing or to avoid it entirely. [8]

Improvements in women's health are imperative if women are to achieve an acceptable quality of life at each stage in their life, if they are to achieve their economic, social and cultural goals, and, if with their partner, they are to rear and care for the next generation. [4]

Are All Women with Unmet Need Potential Users of Contraceptives?

Experts predict that some, but not all, women with unmet need are likely to use contraceptives in the future, and researchers have been able to shed some light on which women are more likely to adopt family planning than others. While survey data cannot directly reveal the strength of a woman's preferences or of the obstacles she faces, analysts can infer her likelihood of using contraception by looking at whether she has used contraception in the past and whether she intends to use it in the future.[15]

At this point further elaborate all circumstances around fertility is crucial. That is why this study was conducted based on the following conceptual framework.

Conceptual Framework for the Study
Factors affecting fertility desire of HIV-positive women

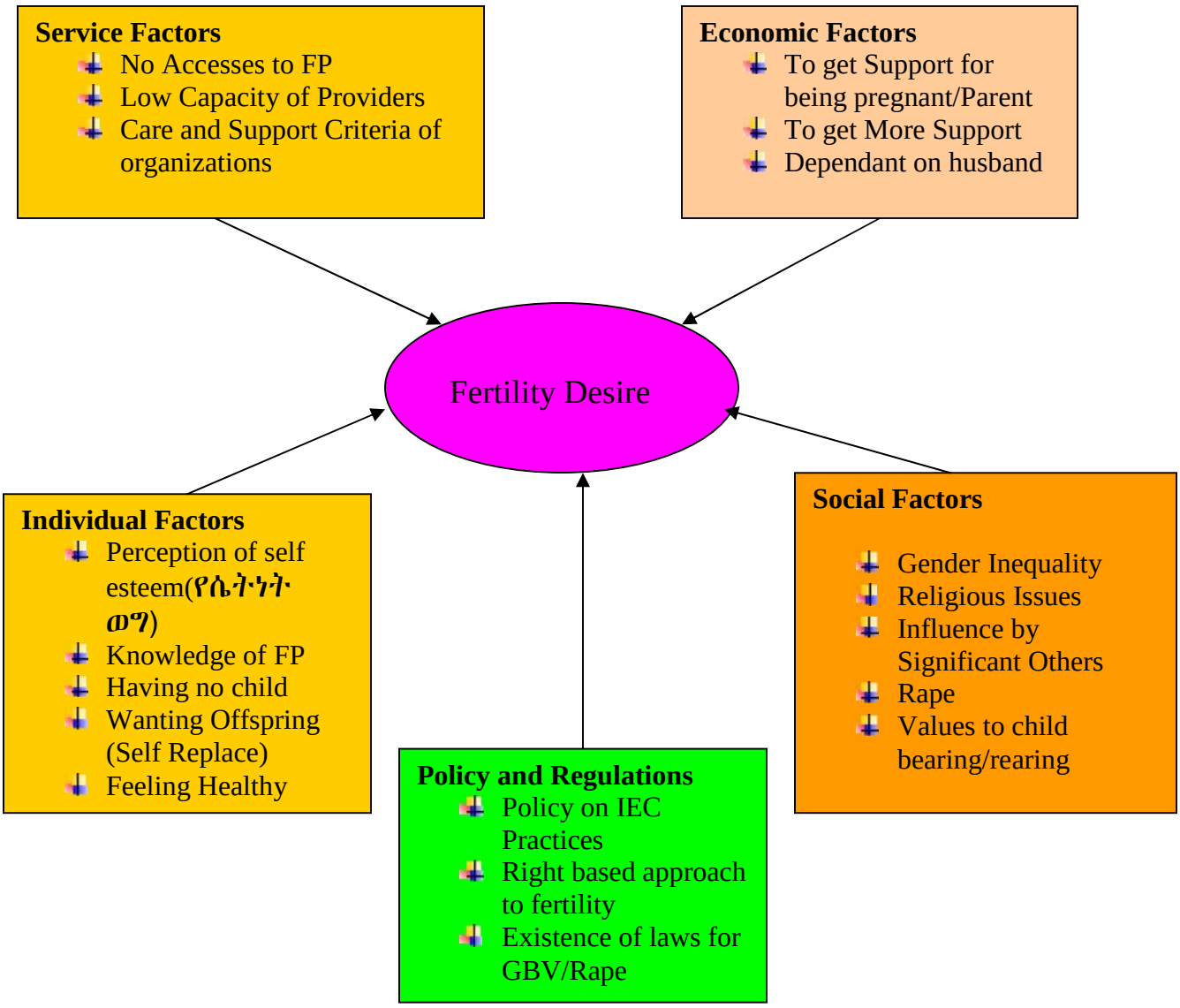

Figure 1 Conceptual frame work

OBJECTIVE

General Objective

This study tries to identify factors which affect fertility desire among HIV-positive women.

Specific Objectives

To identify factors affecting fertility desire of HIV-positive women
To assess perception of HIV-positive women towards child rearing

STUDY DESIGN & METHODOLOGY

Study Area*:* FHI/Ethiopia works with partners in Oromia National Regional State including regional HAPCO and regional health bureau; by direct involvement of FGAE, OSSA and Idirs established HBC programs in six major towns; Jimma, Nekemt, Adama, Shashemene, Asela and Zeway.

The Study was conducted in four selected sites of the above listed areas. In the selection of study sites consideration was given to population density, the extent to which the population is affected by HIV/AIDS and (two of the project sites Jimma and Nekemt had phased out) when the research was conducted. Based upon these criteria, Adama, Shashemene, Asela and Zeway were selected to be the study areas. These four towns are found in central Oromia about 80 km radius from each other. Adama is 100 km away from Addis Ababa to east direction with a population of 213,000. Shashemene is south of Addis at 251km with population of 157,000, Zeway is on the road to Shashemene 160 km and with population of 42,000 and Asela is 175 km south east of Addis with a population of 75,000. (Population figures found from annual reports of each towns municipality-2000 Eth. C.)

Study Design*:* The study used a cross-sectional quantitative study design to identify factors affecting fertility desire among HIV-positive women clients of the HBC program.

Subjects included in this study are**:**

- Women age 15-45 years
- Those on ART and receiving support
- Those who are receiving support but not on ART

Subjects excluded are:

- Women clients age less than 15 and grater than 45 years
- All male clients

Sampling: In order to calculate the required sample size the following facts and assumptions were considered. (Prevalence of the main outcome variable, the degree of accuracy, confidence level and the size of population that the sample is to represent) Proportion of married women in Addis Ababa who wanted to have children was 44.7% in a study and 52%.[9, 16] So in assumption that the proportion will be in the middle for HIV-positive women 50% was taken to calculate the sample; and the formula used:

$$n = Z\alpha/2^2 p\ (1-p))/w^2$$

n= Sample size

Zα/2= level of confidence 95% = 1.96

p= proportion of women desiring for children = 50%

w= standard error = 0.05

So the result is 385 and 4% is added for non responses = 400. Then this number is further proportionally allocated to each study site according to the following table.

Table 1: Distribution of study subjects per site

Study Site	Study population	Proportion taken	Required sample
Adama	645	400/1421*645	182
Shashemene	354	400/1421*354	100
Asela	344	400/1421*344	96
Zeway	78	400/1421*78	22
Total	1421	1421*	400

* Total study population of the four sites

From already available list of total clients a separate list of eligible population who met the selection criteria was prepared at each site from which the sample respondents were selected. Systematic sampling technique (every 4^{th} subject) was used so that each respondent will have a known, non-zero probability of being selected as respondent.

Data Collection and Management:

The data collection involved administration of a pre-tested structured questionnaire, which is developed for this specific target population/respondent and designed to answer the objectives set for the study. The questionnaire contained questions on socio-demographic characteristics, HIV status and whether one is on ART or not, desire for child-bearing and factors that led them to desire child currently or to the future and perception towards their child's future.

Data collectors (trained volunteer care providers and nurse supervisors) were selected to conduct the interview bearing in mind their work experience in field of quantitative data collection. The selected data collectors were given two days extensive training before the actual data collection. Considering the training given, their experience and strict follow up in the process it is believed that data collectors are not liable to introduce bias to the study.

During the training, the objectives of the study, methods and procedures of data collection were discussed. Furthermore, every question in the interview was discussed. Mock interview/role playing was held among the interviewers and field practice (pre-testing) was conducted outside the selected sites (Metahara town).

Data Quality: Data quality was ensured through application of different techniques such as using interview questionnaire in Amharic which was translated from the original English version and cross-checked through back translation, pre-testing of the interview questionnaire in non-study areas, training of all data collectors and supervision of the data collection by four nurse supervisors (one at each site). Moreover, all the data collectors were twelve grade completed care providers with experiences in conducting such assessment with FHI-Ethiopia and other organizations involved in similar activities. Randomly inspecting the data collection process and collecting of the tool filled to cross-check was made on daily basis.

Methods of Data Analysis:

The data was entered and analyzed using Epi Info version 3.4 and SPSS version 17 software. Odds ratios (95% confidence intervals) were used to determine the association of different factors with fertility desire. Multiple logistic regression analysis was used to assess the relative effect of determinants. Using the two soft wares is simply from curiosity to exercise by the investigator; other wise one of them could have been enough for the analysis.

Operational definition

1. Home based care (HBC): any type of care and support (medical, counseling, psychological, referral, nutritional…etc) delivered to HIV-positive individuals at home level.
2. Client: an individual enrolled in the home based care service.
3. Perception towards child rearing: Opinion and expressions of HIV-positive women about child rearing, encompasses three areas
    - Their ability to raise children interns of economy
    - Their feelings if their child acquired HIV and
    - Fate of their children if they passed.

Ethical Consideration:

Ethical clearance was obtained from the Addis Continental Institute of Public Health (ACIPH) ethical review committee. Permission to conduct the study was obtained from FGAE Central Branch. Study participants first received an explanation (verbal consent) on the purpose of the study, and only participants who have consented and agreed to participate were enrolled and interviewed. All interviewees were receiving a thorough explanation that refusing to participate in the study would not affect their relationship with the HBC program nor would the HBC services they receive be affected. Respondent's names were not recorded at all during the process of the assessment, instead codes were written on the questionnaire.

RESULTS

Socio-demographic characteristics

Out of 400 HIV-positive women eligible for the study, all of them agreed to participate. The age range of the study participants was 15 to 45 years. The average age (±SD) of the clients was 31.1 (±5.7) years. The majority of the respondents, 287 (71.8%) were Orthodox Christians. One hundred and thirty respondents (32.5%) were Oromo, 31.5% were unemployed; and 36.3% were housewives. Three hundred thirty one (82.8%) of them get less than 300ETB per month (< 1 USD per day). One hundred and thirty participants were married and 117 were widowed. About 26.5% of the participants never attended school. Hundred and fifty one (37.7%) had experienced three and more pregnancies, yet only 101(26.3%) of them had three and more children alive. Among the total subjects 332 (83%) of them are on anti retroviral treatment currently.

Table 2: Socio-Demographic Characteristics of HIV-positive women clients of home based care service in Oromia Region - May, 2009

Variables	Adama	Shashemne	Asela	Zeway	Total	
					No	%
Age						
15-25	28	17	18	3	**66**	**16.5**
26-35	108	63	53	17	**241**	**60.3**
36-45	46	20	25	2	**93**	**23.2**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Religion						
Orthodox	136	76	62	13	**287**	**71.8**
Muslim	26	7	7	2	**42**	**10.5**
Protestant	17	16	26	6	**65**	**16.2**
Catholic	1	1	1	1	**4**	**1.0**
Others	2	0	0	0	**2**	**0.5**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Ethnicity						
Oromo	56	25	41	8	**130**	**32.5**
Amara	56	25	38	2	**121**	**30.3**
Gurage	38	9	11	6	**64**	**16**
Wolaita	8	28	0	3	**39**	**9.8**
Tigray	18	8	5	0	**31**	**7.7**
Others	6	5	1	3	**15**	**3.7**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Marital Status						
Never married	22	9	6	2	**39**	**9.7**
Married	50	48	30	8	**136**	**34**
Divorced	41	15	25	6	**88**	**21.8**
Widowed	60	18	34	5	**116**	**29.3**
Separated	9	10	1	1	**21**	**5.2**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Education						
Illiterate	53	33	15	5	**106**	**26.5**
Primary	74	42	42	10	**168**	**42**
Secondary	52	22	39	7	**120**	**30**
College and above	3	3	0	0	**6**	**1.5**
Total	**182**	**100**	**96**	**22**	**400**	**100%**

Table 2: Continued

Variables	Adama	Shashemne	Asela	Zeway	Total	
					No	%
Occupation						
House wife	56	50	33	6	**145**	**36.3**
Govt Employee	3	3	5	0	**11**	**2.7**
Trading	30	21	17	3	**71**	**17.8**
Farming	1	0	0	1	**2**	**0.5**
House maid	24	3	17	1	**45**	**11.2**
Daily laborer	54	21	17	10	**102**	**25.5**
Others	14	2	7	1	**24**	**6**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Monthly Income						
Less than 100ETB	83	50	47	12	**192**	**48**
100-299	71	26	34	8	**139**	**34.8**
300-499	17	18	9	1	**45**	**11.2**
500-999	7	6	4	1	**18**	**4.5**
1000 & more	4	0	2	0	**6**	**1.5**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Previous pregnancies						
None	41	14	14	4	**73**	**18.3**
One	48	10	24	3	**85**	**21.3**
Two	39	28	19	5	**91**	**22.7**
Three	17	14	18	8	**57**	**14.2**
More than three	37	34	21	2	**94**	**23.5**
Total	**182**	**100**	**96**	**22**	**400**	**100%**
Children alive						
None	60	17	20	4	**101**	**25.2**
One	54	21	21	5	**101**	**25.2**
Two	36	26	30	5	**97**	**24.3**
Three	16	16	13	8	**53**	**13.3**
More than three	16	20	12	0	**48**	**12**
Total	**182**	**100**	**96**	**22**	**400**	**100%**

Fertility Desire

One hundred and twenty eight (32%) of the respondents desired to have a child; (68%, 30% & 12%) at the age of 15-25, 26-35 & 36-45respectively. (Table 4)

The reasons for a desire to have a child were; 'self esteem' 36%, 'to get a boy child' 16% to replace them selves, 18% and also 11% of them expressed that even though they don't want to have a child, they had to do it for the sake of others, mainly husband, family and elder children wanting siblings (Figure 2).

Regarding desired number of children, 84% of them preferred to have up to two children and the rest wanted three and more children (Table 3).

Table 3: Number of children desired among 128 women with HIV who want to have children in the future In Oromia region four towns- May 2009

Number of Children preferred	frequency	%
1	59	46.1
2	60	46.9
3	5	3.9
4	3	2.3
5	1	0.8
Total	128	100.0

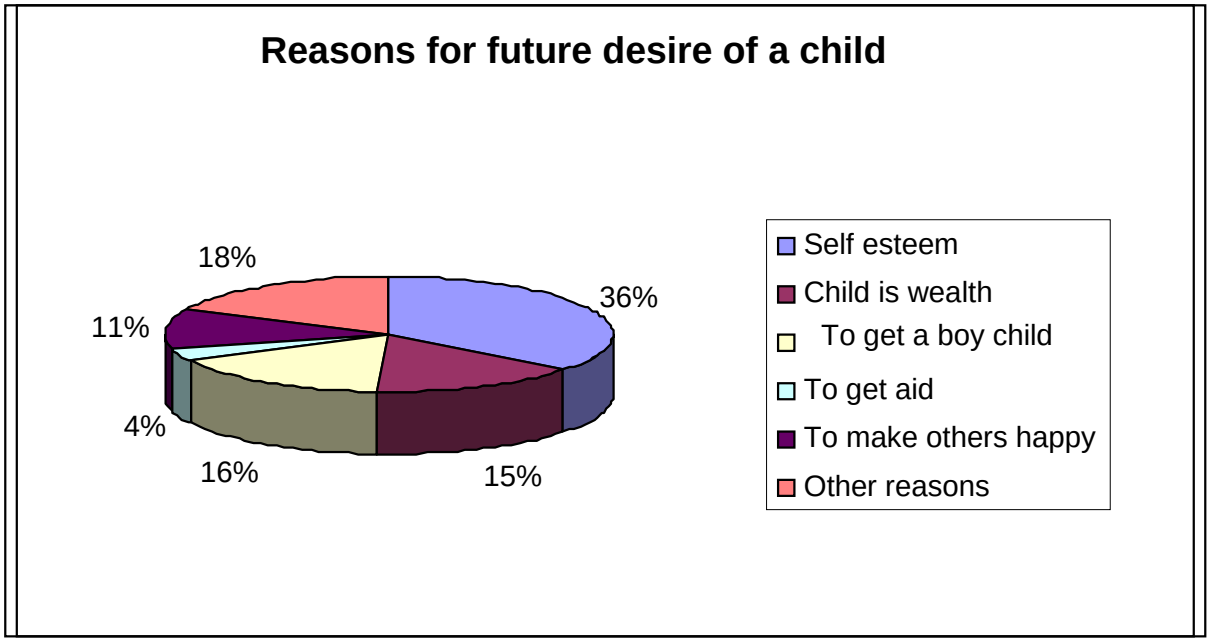

Figure 2: Reasons of 128 women living with HIV for a desire to have a child in Oromia four towns – May 2009

Table 4: Fertility desire of 400 women living with HIV by their age range in Oromia 4 towns- May 2009

Age in years	Yes N (%)	No N (%)	Total
15-25	45(35.2)	21(7.7)	**66(16.5)**
26-35	72(56.2)	169(62.1)	**241(60.3)**
36-45	11(8.6)	82(30.2)	**93(23.2)**
Total	**128(100)**	**271(100)**	**400(100)**

Regarding reasons for no desire to have a child, 18.7% mentioned having enough children, 15% mentioned ill health, 12% mentioned being poor, and another 8% mentioned other reasons like religious obligations, hatred to men (particular to the separated and divorced ones) (Figure 3).

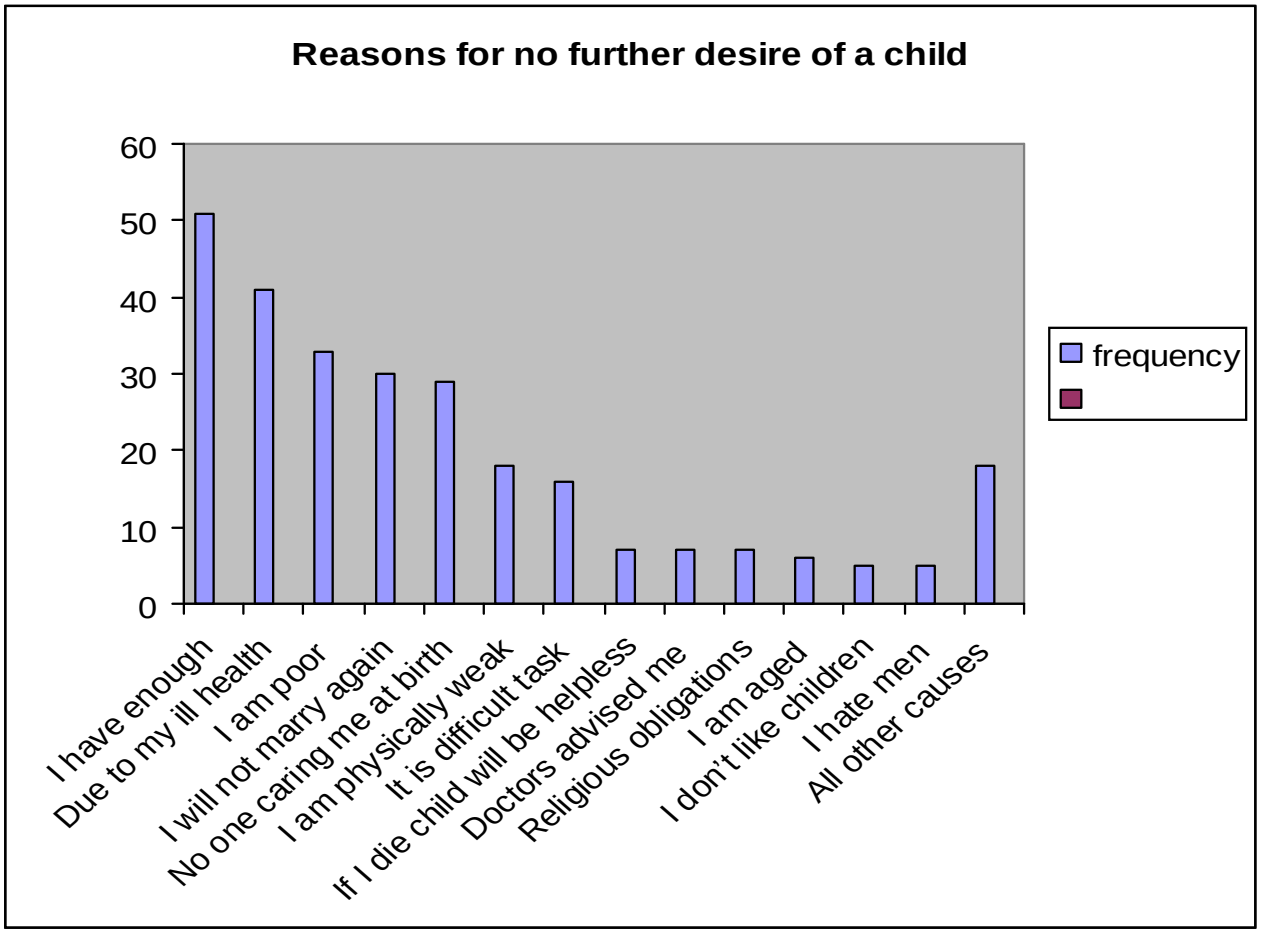

Figure 3: Reasons of 272 women living with HIV for not wanting a child in the Future in Oromia four towns – May 2009

Twenty nine (8%) of the respondents were pregnant. For 6 (21%) of them, the pregnancies were planned and wanted where as for the rest pregnancies happened either accidentally or with out their interest (influenced by somebody) (Table 5)

Table 5: Responses of 23 currently pregnant women with HIV by factors which influenced them to get pregnant, Oromia region four towns – May 2009

Influencing factor	Frequency	%
Husband	13	56.5
Sex partner	5	21.7
Family	4	17.4
Peers	1	4.4
Total	**23**	**100.0**

Concern about child bearing and rearing

Eighty three percent of the participants are unable to bring up (take care of) their children by their own. Rather expect external (government or non government) assistance.

For the question "what will be the fate of your child if you die?" Only 21% of them said that they have a guarantee that their children will be taken care of either by inherited wealth or by close relatives (Table 6). Regarding their response to a possible question that a child born after they acquired HIV will ask "why did you give birth to me knowing that you have HIV in your blood?"; one hundred and thirty two (33%) of them said they will try to convince the child by telling him that it happened accidentally. (Table 7)

Table 6: Responses of 400 women with HIV on their perception about fate of their child if they die, Oromia region four towns – May 2009

Reasons	Frequency	%
I have wealth to be inherited	11	2.8
Close relatives will take over	73	18.3
The child's own luck determines	72	18.0
God knows	193	48.2
I have no answer	51	12.7
Total	**400**	**100.0**

Table 7: Response of 400 HIV-positive women towards their HIV-positive child question saying "why you give birth to me while you know you have HIV?" Oromia region four towns – May 2009

Mothers Response	Frequency	%
I will tell him I feel regret	97	24.2
I will tell him it happened accidentally	132	33.0
I will tell him it was God's will	64	16.0
I have no answer	107	26.8
Total	**400**	**100.0**

Regarding knowledge of PMTCT, about 172 (43%) of respondents mentioned they will not transmit the virus to their child because they are taking ART, and others said they will follow ANC. Only 18 (4.5%) properly suggested they will follow prevention of mother to child transmission program.

Table 8 HIV-positive women's desire to have children by selected characteristics in Oromia region four towns- May 2009

Socio demographic Characteristics	Desire to have Children N (%)	Do not desire to have children N (%)	Crude OR (95%CI)	Adjusted OR (95%CI)
Age				
15-25	45(68.0)	21(32.0)	15.97 (6.61, 39.51)	5.76 (3.23, 10.28)*
26-35	72(30.0)	169(70.0)	7.05 (3.48, 14.60)	5.24 (2.86, 9.60) *
35-45	11(11.8)	82(88.2)	1	1
Religion				
Orthodox	92(32.2)	194(67.8)	2.11 (0.39, 1.42)	1.55 (0.69, 3.52)
Muslim	16(37.2)	27(62.8)	0.69 (0.24, 1.48)	1.04 (0.40, 1.23)
Protestant	17(26.2)	48(73.8)	0.82 (0.40, 1.26)	1.01 (0.39, 1.42)
Others	3(50.0)	3(50.0)	1	1
Ethnicity				
Oromo	36(28.0)	93(72.0)	2.20 (0.68, 7.53)	1.67 (0.91, 3.07)
Amahra	34(28.0)	87(72.0)	2.24 (0.67, 7.50)	1.66 (0.90, 3.06)
Gurage	28(43.0)	37(57.0)	1.10 (0.33, 4.07)	1.08 (0.59, 1.99)
Wolaita	14(35.9)	25(64.1)	1.56 (0.40, 6.16)	1.30 (0.66, 2.58)
Tigray	9(29.0)	22(31.0)	2.14 (0.50, 9.52)	1.61 (0.74. 3.48)
Others	7(47.0)	8(53.0)	1	1
Marital Status				
Married	51(37.5)	85(62.5)	2.21 (1.34, 3.64)	1.76 (1.26, 2.45) *
With out marriage	48(21.3)	177(78.7)	1	1
Education				
Primary	48(28.5)	120(71.5)	1.43 (0.78, 2.63)	1.39 (0.85, 2.45)
Secondary & Above	57(36.3)	100(63.7)	1.29 (0.69, 2.42)	1.18 (0.79, 1.76)
Illiterate	23(30.6)	52(69.4)	1	1
Occupation				
House wife	37(25.5)	108(74.5)	0.77 (0.23, 2.39)	0.82 (0.36, 1.87)
Govt employee	5(45.5)	6(54.5)	0.32 (0.05, 1.87)	0.46 (0.17, 1.26)
Trade	28(38.9)	44(61.1)	0.41 (0.12, 1.36)	0.54 (0.23, 1.23)
House maid	14(31.1)	31(68.9)	0.58 (0.15, 2.13)	0.67 (0.27, 1.64)
Daily laborer	39(38.6)	62(61.4)	0.42 (0.12, 1.32)	0.54 (0.24, 1.22)
Others	5(20.8)	19(79.2)	1	1

Table 8 continued

Socio demographic Characteristics	Desired to have children N (%)	Do not desire to have children N (%)	Crude OR (95%CI)	Adjusted OR (95%CI)
Monthly Income				
< 300ETB	99(30.0)	231(70.0)	2.03 (0.02, 5.78)	1.94 (1.06, 2.57)
300-499	17(37.0)	29(63.0)	2.53 (0.56, 5.23)	1.85 (1.35, 2.35)
≥500	12(50.0)	12(50.0)	1	1
# of previous pregnancies				
None	53(72.0)	20(28.0)	25.93 (11.51, 59.56)	7.83 (4.66, 13.15) *****
1	37(43.5)	48(56.5)	7.54 (3.57, 16.13)	4.69 (2.70, 8.18)*****
2	24(26.4)	67(73.6)	3.51 (1.61, 7.68)	2.84 (1.55, 5.21)
3 & more	14(9.3)	137(90.7)	1	1
# of children alive				
None	73(71.6)	29(28.4)	25.73 (10.80, 63.14)	8.03 (4.25, 15.16) *****
1	31(31.0)	69(69.0)	4.59 (1.94, 11.16)	3.48 (1.75, 6.93)*****
2	15(15.5)	82(84.5)	1.87 (0.72, 4.92)	1.74 (0.83, 3.78)
3 & more	9(8.9)	92(91.1)	1	1
Currently on ART				
Yes	98(29.5)	234(70.5)	0.53 (0.30, 0.82)	0.67 (0.49, 0.72)
No	30(44.1)	38(55.9)	1	1
Since when ART started	**N=98(%)**	**N=234(%)**		
< 1 yr	30(35.7)	54(64.3)	0.80 (0.35, 1.33)	0.97 (0.77, 1.28)
1-2 yr	39(26.3)	104(72.7)	1.06 (0.56, 1.86)	1.74 (1.01, 2.52)
≥3 yrs	29(27.6)	76(72.4)	1	1

DISCUSSION

Out of the 400 respondents in the study 128(32%) of them showed a desire to have children. Though different from a similar study done in Addis Ababa (44.7%)[15] which could be due to some reasons yet to be identified; one factor may be; since the implementing organization is FGAE, routine follow up, counseling and quick service provision on SRH/FP needs has resulted in more subjects to refrain from child bearing. On the other hand, many factors mentioned in other studies remain significantly associated. Age of the respondent was an important factor associated with fertility desire. People in the age group 15–25 years had a higher desire for children 68% ($p - < 0.05$) as compared to the other age groups (26-35, 30% and 36-45 12%) which was similar to the findings of studies done in the United States[17] and Nigeria.[18] This is also in accordance with expectations in the general population that the number of desired children is higher for younger and low-parity women.[19]

Number of children alive is also significantly associated with a desire for a child; those who have no child are eight times more likely to desire than those with two or more children ($p- < 0.05$).

Almost all women (81%) with less than two children alive have increased desire for further child than those having three or more children. Those never pregnant were found to be 18% of the total respondents but when it comes to respondents with out a child it is 25%; thus the 7% difference is obviously those experienced previous pregnancy and now having no child. This may be an indication that either abortion is frequent or there is high child death.

Educational status was not significantly associated with respondents' fertility desire.

Another factor related to a desire to have children was marital status; those married and still in married relationship were in need of a child two times than those out of marriage.

Among all respondents only 4.5% of them mentioned that they will take preventive measures not to transmit the virus to their child.

This finding has large implications for vertical transmission of HIV. Another important finding of this study is the controversial relation of child bearing and rearing. Only 21% of the total respondents believed that their child is guaranteed to be taken care of even if they passed. And in contrast when asked whether they are capable of bringing up their child by their own or not 83% of all respondents declared they can't bring up their child by their own; expecting external assistance.

As far as poverty is a para mounting picture; most of the clients are liable to practice unprotected sex and get pregnant for small amount of benefits in cash or in kind.

Due to extremely low income they are not self sufficient in house hold food security and obviously under nourished. This condition increases the burden of ill health on the mother and underdevelopment of the fetus and eventually termination of pregnancy or low birth weight. Even the delivered ones remain with different micro nutrient deficiencies and poor immune status. These lead to stunting, inability to attend school and or poor performance in children and later on unproductive citizens.

The major limitation of this analysis is the use of cross-sectional data which limits the ability to establish causation. Sexual partners were not linked, and HIV-negative partners were not interviewed, limiting the ability to assess couple dynamics around desire for children.

However, the study was able to examine participant's perception towards child bearing and rearing. Those who desire children and are engaging in pregnancy risk behavior need education on the efficacy of PMTCT interventions and linkages to PMTCT providers, and those who desire children and are not engaging in pregnancy risk behavior need on-going counseling on strategies for minimizing transmission risk while attempting conception and on the efficacy of PMTCT interventions so that they make informed choices about their pregnancy.

CONCLUSION and RECOMMENDATIONS

As far as desire for children is concerned, 32% wanted to have children. A considerable percentage was intending to have at least one child in future at any cost. Therefore, the fact that many HIV infected adults desire and expect to have children has important implications for the prevention of vertical and heterosexual transmission of HIV and the future demand for social services for children born to infected parents. For many HIV infected men and women health care workers can play a central role in decision-making about childbearing and childrearing. In this regard, counselors' role is seen as particularly crucial. They should give advice as how to balance safer sex practices and the desire to reproduce.

For those wanting more children and those perceive 'child as wealth' should carefully take in to consideration. In a country like Ethiopia where the population structure shows younger population and high dependency ratio; additional orphans and vulnerable children may bring serious problem. Hence we could revise our population policy; we shall refer and adopt other countries experience.

If child survival services were in good condition; desire for further child could be minimized. In this direction efforts should be maximized to fully immunize and improve the nutritional status of all children.

In general there seems to be deep rooted beliefs that 'to have a child in ones life is a must'; needs further exploration. I could rather suggest a qualitative research.

References

1. Ministry of Health. Single point HIV prevalence estimate. Addis Ababa, Ethiopia. 2007.
2. USAID. Population & economic development LINKAGES 2007 data sheet; PRB. 1875 Connecticut ave.
3. Ministry of Health. Health and health related indicators 2007/08; Planning and programming department 2008. Addis Ababa.
4. WHO. Challenges in women's health in the 21st century; Women's Health Western Pacific Region. 2000.
5. Victoria R, Charlotte W, Amare Y. Safe motherhood community survey Ethiopia-final report. Population Council. UNFPA. 2005. p. 1-81.
6. Suryavanshi N, Erande A, Pisal H, Shankar A, Anita V, Bhosale et al. Repeted pregnancy among women with known HIV status in Pune India; AIDS Care. 2008. p. 1111-1118.
7. Ranjana S. Fertility and desire for children among HIV infected persons with special reference to Mumbai: Post doctoral research. Indian Institute of Management. 2005. p. 1-17.
8. UNAIDS. Meting the sexual and reproductive health needs of people living with HIV. Guttmacher Institute. 2008.
9. Central statistics authority. Ethiopia Demography and Health survey. ORC Macro Calverton, Maryland, USA. 2006.
10. Federal HAPCO. AIDS in Ethiopia sixth report. Addis Ababa. 2007.
11. Carla A. Safe motherhood: a brief history of the global movement *1947*-2002; British Medical Bulletin. 2003. p. 13-25.
12. Glasier A, Gulmezoglu M, Goorge P, Claudia G, Poul FA, Van Lock. Sexual and reproductive health: a matter of life and death. Lancet 2006; 368:595-607.
13. Fantahun M. Quality of family planning services in northwest Ethiopia. Ethiop. J. Health Dev. 2005.19(3): 195- 202
14. WHO and UNICEF. Antenatal care in developing countries, promises, achievements and missed opportunities, An analysis of trends, levels and differentials. 1990-2001.

15. Lori Asheford, Unmet need for family planning. Washington DC 20009 USA: MEASURE Communications; 2003.
16. Tamene W, and Fantahun M. Fertility desire and family- planning demand among HIV-positive women and men undergoing antiretroviral treatment in Addis Ababa, Ethiopia. AJAR. 2007. 6(3), 223-227.
17. Gunawan S, Meg E, Endang A, Surekha C, and Carine R. A district-based audit of the causes and circumstances of maternal deaths in south kalimantan, Indonesia. World Health Organization; 2002. p. 228-234
18. WHO. Make every mother and child count: The World Health Report 2005, 1211 Geneva 27, Switzerland. 2005.
19. McCarraher, Donna, Cuthbertson , Carmet, Kung'u, Dorcas et al. Sexual behavior, fertility desires and unmet need for family planning among home-based care clients and care givers in Kenya. AIDS Care. 2008. p.1057-1065.
20. Elizabeth MS, Benjamin H, Maminga C, Tracy LC, Didier K, David C. et al. Monitoring effectiveness of programs to prevent mother-to-child HIV transmission in lower- income countries. World Health Organization; 2008. p. 57-62
21. London M, Chelsea M, Kevin R. Prevalence and determinants of fertility intentions of HIV-Infected women and men receiving antiretroviral therapy in South Africa. AIDS patient care & STDs. 2007. p. 278-285.
22. Sylvia N, Betty A, Laura P, Julie L, Devid W, Rachel K et al., Desire for children
23. Pregnancy risk behavior among HIV-infected men and women in Uganda. AIDS Behav. 2006. p.95-104.
24. USAID, Family planning/HIV integration: FP/HIV technical guidance. Sept. 2003. p. 1-33
25. Integration of family planning and HIV/AIDS services. Retrieved Dec. 30, 2008 from http://www.infoforhealth.org
26. Carine R, Wendy J. Maternal Morbidity: who when where and why. Lancet: 2006. p. 1189-2000
27. Chelsea M, Jennifer S, Lynn M, Mmabatho M, Mags B. Dual protection against sexually transmited infections and pregnancy in South Africa, African Journal of Reproductive Health. 2003. p. 13-19.

28. DFID, Maternal health: fifth report of session 2007-08. London: House of Commons; . 2008.
29. James Mc, Deborah M. A framework for analyzing the determinants of maternal mortality: studies in family planning. 1992. p. 23-33.
30. Ghada H. Maternal mortality: a neglected and socially unjustifiable tragedy. Eastern Mediterranean Health Journal. 1998. p 7-10.
31. Roberta W, Beatriz S. Womens Health Issues Across the Life Span. Elsevier Science Inc; 2001. p. 148-159.
32. UNFPA. Millennium development goals (MDGs). 1999.
33. WHO. Reducing maternal deaths; the challenge of the new millennium in the African Region; Regional Office for Africa, Brazzaville, Congo. 2001.
34. Irving F, Hoffman, Francis E, Martinson A, Kimberly A, Powers et al. The year-long effect of HIV-positive test results on pregnancy intentions, contraceptive use and pregnancy incidence among Malawian women. Lippincot: 2008. p. 1-7.
35. Chen S and Bruyn. Reproductive choices and women living with HIV/AID. 2001. Retrieved on January 1, 2008 from http://www.ipas.org
36. Oladepo R, Villagrana-Zesta R. Factors asiciados a la acceptacion de salpingoclasia posparto entre mujeres infectadas por el HIV. Salud Publica Mex; 2005. p. 97-102

Annex I

Questionnaire to assess factors for fertility desire among HIV-positive women in Oromia four towns

Town_____

Date_____

Name of Interviewer_____

Signature_____

Part I. Socio demographic Characteristics

101. Kebele _____
102. ID No _____
103. Age _____
104. Religion; 1. Orthodox_____
2. Muslim____
3. Protestant_____
4. Catholic_____
99. Other (Specify)_____
105. Ethnicity; 1. Oromo_____
2. Amhara_____
3. Gurage ____
4. Wolaita____
5. Tigray_____
99. Other (Specify)_____
106. Marital Status; 1. Never married____
2. Married ____
3. Divorced____
4. Widowed _____
5. Separated_____
107. Education; 1. Illiterate____
2. Primary____
3. Secondary____
4. College and above_____
108. Occupation; 1. House wife____
2. Government employee___
3. Trading____
4. Farmer ____
5. House maid _____
6. Daily laborer____
99. Other (Specify)_____

109. Monthly income

1. Less than 100 ETB___
2. 100-299___
3. 300-499___
4. 500- 1000___
5. more than 1000____

110. Number of Pregnancies; 1. No___
2. One____
3. Two___
4. Three____
5. More than three____

111. Number of Children Alive; 1. No___
2. One___
3. Two___
4. Three___
5. More than three____

Part II. Factors Associated to Fertility Desire

112. When did you know you have HIV in your blood?

1. Less than 1 year_____
2. 1-2 Years _____
3. 3-4 Years _____
4. 5 years and above _____

113. Are you taking ART? 1. Yes____ 2. No _____ **(If No Skip to Q116)**

114. If yes to Q113 for how many time;

1. Less than 1 Year___
2. 1-2 years____
3. 3-4 years___
4. 5 years and above_____

115. Since then have you ever pregnant? 1. Yes____ 2. No ____

116. Have you delivered that pregnancy? 1. Yes____ 2. No_____

117. Are you pregnant currently? 1.Yes____ 2. No_____, **(If no skip to Q121**)

118. If yes how did it occur? 1. Unknowingly____
2. Knowingly but without my interest_____
3. Knowingly and wanted_____

119. If knowingly but without your interest why it happened?
1. No Knowledge how to avoid conception___
2. No family planning service in the area___
3. Service providers are not good____
4. By others influence ____

120. If others are influencing who are they?
1. Husband___
2. Partner___
3. Family___
4. Peers____
99. Others (Specify)_____

121. Do you want to have a child in the future?
1. Yes___ 2. No___ (**If No skip toQ123)**

122. If yes how many? 1. 1___ 2. More than 1____

123. Why do you want to have?
1. For self esteem____
2. Children are wealth____
3. To have baby boy____
4. To get more support from organizations_____
5. Due to influences by significant others_____
99. Other (Specify)_____

124. If you are not in need of a child in the future what is your reason?
_____

124. Do you know HIV could be transmitted from the mother to her child? during pregnancy ; breast feeding? 1. Yes____ 2. No____

125. If yes do you believe you can also transmit it to your child?
1. Yes____ 2. No_____

126. If no what is your reason?
1. I am taking ART____
2. I will follow ANC and could take protective measures_____
99. Other (specify)_____

127. How much did cost to grow a child?

1. less than 1000 ETB_____
2. 1000-4999 _____
3. 5000-9999 _____
4. 10000 & above_____

128. Are you capable of nurturing of your child by your own? 1. Yes_____ 2. No_____

129. What do you think will be your child's fate if you die?

1. I have wealth to inherit_____
2. Close relatives will take over____
3. Depends on his luck_____
4. God Knows_____
5. I can't say_____

130. What will be your answer if you HIV-positive child grow to 7 years and asked you "why you born me while you know you have the virus?"

1. I will tell him I am in regret_____
2. I will tell him it was an accident____
3. I will tell him only God is responsible for this____
4. I can't say_____

131. Is it worth to have a baby while one is suffering from untreatable disease?

1. Yes_____
2. No_____

Thank you very much!

Annex II

ኤች አይ ቪ በደማቸው የሚገኝ ሴቶች የማርገዝና ተጨማሪ ልጅ የመውለድ ምክንያቶቻቸውን በዝርዝር ለማወቅ የተዘጋጀ መጠይቅ

በ_____ከተማ
ቀን_____
መጠይቁን ያደረገዉ መረጃ ሰብሳቢ ስም_____
ፊርማ_____

<u>ክፍል1. የግለሰብና ማህበራዊ ህይወት መገለጫዎች</u>

101. ክፍለ ከተማ_____ ቀበሌ_____
102. የግለሰብ መለያ ቁጥር_____
103. ዕድሜ_____
104. ሀይማኖት
    1. ኦርቶዶክስ____
    2. ሙስሊም_____
    3. ፕሮቴስታንት____
    4. ካቶሊክ_____
    5. ሌላ (ይገለጽ)_____
105. ብሔረሰብ
    1. ኦሮሞ____
    2. አማራ____
    3. ጉራጌ____
    4. ዳውሮ____
    5. ትግሬ____
    6. ሌላ (ይገለጽ)_____
106. የጋብቻ ሁኔታ
    1. ካሁን ቀደም ያላገቡ____
    2. ያገቡና አብረዉ ያሉ____
    3. የተፋቱ____
    4. ባላቸው በሞት የተለየ____
    5. ፍቺ ሳይፈጽሙ ተለያይተዉ የሚገኙ____
107. የትምህረት ደረጃ
    1. ፊደሞ ያልተማሩ____
    2. የመጀመሪያ ደረጃ (ከ1-6)____
    3. ሁለተኛ ደረጃ (ከ7-12)____
    4. ኮሌጅና ከዚያ በላይ___

108. ሥራ
    1. የቤት እመቤት_____
    2. የመንግስት ተቀጣሪ___
    3. የግለሰብ ተቀጣሪ____
    4. ንግድ_____
    5. ግብርና_____
    6. የቤት ሰራተኛ____
    7. የቀን ሠራተኛ____
    8. ሌላ (ይገለጽ)_____
109. ወርኃዊ ገቢ
    1. ከ 100 ብር ያነሰ____
    2. ከ100-299ብር____
    3. ከ300-499ብር____
    4. ከ500-1000ብር____
    5. ከ1000ብር በላይ_____
110. ከዚህ በፊት ስንት ጊዜ አርግዘዉ ነበር?
    1. ምንም አላረገዙም____
    2. አንድ ጊዜ____
    3. ሁለት ጊዜ____
    4. ሶስት ጊዜ_____
    5. ከሶስት ጊዜ በላይ____
111. አሁን በህይወት ያሉ ልጆች ቁጥር
    1. ምንም የለም___
    2. አንድ ልጅ____
    3. ሁለት ልጆች___
    4. ሶስት ልጆች___
    5. ከሶስት በላይ___

ክፍል 2 ለማርገዝ ወይም ለመዉለድ የሚገፋፉ ምክንያቶች

112. መቼ ነዉ ቫይረሱ በደምዎ እንደሚገኝ የተረዱት?
    1. ከአንድ አመት ወዲህ___
    2. ከ 1-2 አመት___
    3. ከ 3-4 አመት____
    4. 5 አመትና ከዚያ በላይ____
113. በአሁኑ ጊዜ ጸረ-ቫይረሱን መድሃኒት በመዉሰድ ላይ ነዎት?
    1. አዎ____
    2. የለም____**(የለም ካሉ ወደ ጥያቄ 116 እለፍ)**
114. ለጥያቄ ቁጥር 112 መልስዎ አዎ ከሆነ ለምን ያህል ጊዜ?
    1. ከ 1 አመት በታች____
    2. ከ 1-2 አመት____
    3. ከ 3-4 አመት____
    4. 5 አመትና ከዚያ በላይ____
115. መድኃኒቱን መዉሰድ ከጀመሩ ወዲህ አርግዘዉ ያዉቃሉ?
    1. አዎ____
    2. የለም____
116. መልስዎ አዎ ከሆነ ያን ያረገዙትን ወልደዋል?
    1. አዎ_____
    2. የለም____
117. በአሁኑ ሰአት እርግዝና አለዎት?
    1. አዎ ____
    2. የለም____ **(የለም ካሉ ወደ ጥያቄ 120 እለፍ)**
118. መልስዎ አዎ ከሆነ እርግዝናዉ እንዴት ተፈጠረ?
    1. ሳላዉቅ በድንገት_____
    2. እያወቅሁት ግን ያለፍላጎት____
    3. በፍላጎትና እያወቀሁት_____
119. እያወቁት ግን ያለፍላጎት ካረገዙ እንዴት ሊሆን ቻለ?
    1. የፈጣሪ ስራ ነዉ (እርግዝናን ማስቀረት እንደሚቻል አላዉቅም)____
    2. የቤተሰብ ምጣኔ አገልግሎት በቅርቡ ባለመኖሩ____
    3. ባለመዉያዎቹ አገልግሎት ለመስጠት ስለማይመቹ____
    4. በሌሎች ግፊትና ተጽዕኖ ምክንያት____
120. ሌሎች ተጽዕኖዎች ካሉ ምንድናቸው?
    1. ባለቤቴ____
    2. የጾታ ግንኙነት የምናደርገዉ ሰው____
    3. ቤተሰቤ____
    4. የአካባቢ ጉዋደኞቼ____
    5. ሌላ (ይገለጽ)_____

121. ወደፊት ልጅ የመውለድ ሀሳብ አለዎት?
    1. አዎ_____
    2. የለም_____ **(የለም ካሉ ወደ ጥያቄ 124 እለፍ)**
122. አዎ ካሉ ስንት መውለድ ያስባሉ?
    1. አንድ ብቻ_____
    2. ከአንድ በላይ (ቁጥሩ ይገለጽ)_____
123. መውለድ የፈለጉበትን ምክንያት ቢገልጹልኝ?
    1. የሴትነት ወግ ለማየት_____
    2. ልጅ ማለት ሀብት ስለሆነ____
    3. ወንድ ልጅ ለማግኘት_____
    4. ልጅ ከወለድኩ እርዳታ ሰጪ ድርጅቶች ይደግፉኛል____
    5. እንድወልድ የሚፈልጉትን ለማስደሰት_____
    6. ሌላ (ይገለጽ)_____
124. መውለድ ያልፈለጉበት ምክንያት ምንድነው?

    _____
124. ኤችአይቪ ከእናት ወደ ልጅ ሊተላለፍ እንደሚችል ያውቃሉ?
    1. አዎ_____
    2. የለም____
125. መልስዎ አዎ ከሆነ እርስዎም ለሚያረግዙት (ለሚወልዱት) ልጅ ቫይረሱን ሊያስተላልፉ እንደሚችሉ ያምናሉ?
    1. አዎ_____
    2. የለም____

126. መልስዎ የለም ከሆነ የማያስተላልፉበት ምክንያት ምንድነዉ?
    1. ጸረ-ቫይረስ መድሃኒት ስለምወስድ_____
    2. የነፍሰ ጡር ምርመራ ስለምከታተል___
    3. ሌላ (ይገለጽ)_____

127. አንድ ልጅ ለማሳደግ ምን ያህል ወጪ ያስፈልጋል?
    1. በዕድሉ ያድጋል_____
    2. _____ብር ያስፈልጋል
    3. ሌላ (ይገለጽ)_____
128. ልጅ ቢወልዱ ያለማንም አጋዥ አሳድጋለሁ ብለዉ ያስባሉ?
    1. አዎ___
    2. የለም___
129. አያድርገዉና በሞት ቢለዩ የልጅዎ እጣ ፈንታ ምን የሆናል?
    1. የማወርሰዉ ሃብት ስላለኝ በሱ ያድጋል___
    2. የቅርብ ዘመዶች ያሳድጉታል___
    3. ዕድሉ የፈቀደዉን ይሆናል____
    4. ፈጣሪ ነዉ የሚያወቀዉ_____
    5. ምን እንደምል አላውቅም____

130. ቫይረሱ የተላለፈበት ልጅዎ 7 አመት እድሜ ሞልቶት “ቫይረሱ በደማችሁ እንዳለ እያወቃችሁ ለምን ወለዳችሁኝ” ብሎ ቢጠይቅ መልስዎ ምን ይሆናል?
    1. በጣም ጸጸት እንደሚሰማኝ እነግረዋለሁ _____
    2. በድንገት እንደሆነ ነግሬ አሳምነዋለሁ___
    3. የፈጣሪ ስራ መሆኑን እነግረዋለሁ____
    4. ምን እንደምል አላውቅም _____

131. አንድ በማይድን ህመም የተያዘ ሰዉ መዉለዱ ጠቀሜታ አለው ብለዉ ያምናሉ?
    1. አዎ_____
    2. የለም_____

ጊዜዎን ስለተሻማሁና በጥሞና ለሰጡኝ ምላሽ እጅግ አመሰግናለሁ

እግዚአብሔር ይስጥልኝ

Annex III

Consent (English)

Greetings! Good morning /Good afternoon accordingly
My name is_____ I came from _____ HBC center. As you know for the last four years we have been rendering home based care service in this town. When the service is reviewed pregnant clients with the virus are increasing; particularly the later two years. So it is necessary to know the reasons for the betterment of the service. That is why I am here today to collect information about women's desire to fertility. I have a sort questions which must be answered from your opinions only; no right or wrong answer here. You are one of the selected clients by drawing out of many clients. All information you are giving will be kept in secret and none of your response will be used against you and the service given to you; even your name is not written on this questionnaire. Now I am going to stay with you for about half an hour. Are you willing enough to give your responses? Confirm it verbally. You have the right to participate or to refuse

She is willing_____ Not willing_____

If not willing the interview will be cancelled

Consent (Amharic)

በፈቃደኛነት የመሳተፍ መተማመኛ

ጤና ይስጥልኝ ንደምን አደሩ፤ ዋሉ (ንደአግባቡ)

ስሜ _____ ይባላል፡፡ የመጣሁት ከ_____ የቤት ለቤት ድጋፍና እንክብካቤ ማዕከል ነው፡፡ ይህ ድርጅት ላለፉት አራት አመታት የቤት ለቤት ድጋፍና እንክብካቤ አገልግሎት ሲያበረክት መቆየቱን እርስዎም የሚያውቁ ይመስለኛል፡፡ አሁን ድርጅቱ ስራዉን ሲመለከት በተለይ ባለፉት ሁለት አመታት ከቫይረሱ ጋር የሚኖሩ ሴት ተገልጋዮች ነፍሰ ጡር የመሆን ቁጥር እየጨመረ በመምጣቱ፤ምክንያቶቹን ከእናንተዉ ከጉዳዩ ባለቤቶች ለመዘገብ ነው አመጣጤ፡ ካሉት ብዙ ተገልጋዮች ውስጥ በእጣ ከተመረጡት አንዱዋ እርሰዎ ነዎት፡ ምክንያቶችን በዝርዝር ለማወቅ እንዲቻል የተዘጋጁ ጥያቄዎች ስላሉ ጥቂት ጊዜ (30 ደቂቃ ያህል) ወስደው አነዲመልሱልኝ እየጠየቅሁ፡ ለጥያቄዎቹ በሙሉ የራስዎን የሚያምኑበትን ነጻ መልስ እንጂ እኔ የምፈልገው ትክክል ወይም ስህተት የሚባል መልስ እንደሌለ ላረጋግጥልዎት አወዳለሁ፡፡

የሚሰጡኝ መልስና አስተያት ሁሉ በጥንቃቄና በሚስጥር የሚያዝ ሲሆን ስምዎም በዚህ መልስ መስጫ ላይ አይጻፍም፡፡ እንዲሁም በሚሰጡት መልስ ምክንያት የሚደረግልዎ አገልግሎት ይጎድላል ብለዉ በፍጹም አይስጉ፡ ይህም ማለት መረጃዉ የሚላክላቸዉ አጥኚዎች ከብዙ ሺ ተገልጋዮች መካከል አንድ ግለሰብ ይህን መልስ እንደሰጡ ይረዳሉ እንጂ የእርስዎን ማንነት ማወቅ እንደማይችሉ ወይም አንደማይፈልጉ በተጨማሪ አረጋግጥልዎታለሁ፡፡ ስለዚህ ነጻ መልስዎን ለመስጠት ሙሉ ፈቃደኝነትዎን በቃል ያረጋግጡልኛል?

በፈቃደኝነት የመሳተፍ ወይም አልፈልግም የማለት ሙሉ መብት አለዎት፡፡

ፈቃደኛ ሆነዋል_____ አይደሉም_____

ፈቃደኛ ካልሆኑ ቃለመጠይቁ አይካሄድም